

### Abstract

The present invention provides cluster management from a single application. A user may perform management tasks on all of the devices within the cluster using a GUI or a CLI. The system automatically discovers the members of the cluster and acquires a configuration lock on the devices preventing other users from performing conflicting operations. If a problem occurs during a configuration, the devices may be rolled back to a previous working configuration. A message format is provided to help ensure message integrity beyond the security provided by a secure transport. An aggregator aggregates configuration information and monitored data and allows the information to be presented according to a user's requirements.

